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ABSTRACT

A national study (the sixteenth annual study of its kind) examined the supply and demand for teachers of vocational agriculture in 1980. To obtain data pertaining to supply and demand for vocational agriculture teachers, researchers mailed questionnaires and follow-up letters and made telephone calls to all institutions preparing teachers in vocational agriculture as well as to the offices of state supervisors in agriculture. Information regarding numbers of graduates qualified and the number of teaching positions available were then tabulated for each state and each institution preparing teachers. The study revealed a turnover rate of 12.5 percent requiring 1,561 teacher replacements for 12,510 positions in 1980. The number of persons qualified to teach agriculture was the lowest in the last 11 years. Thus, a shortage of vocational agricultural teachers continues to exist. However, the shortage occurs in certain areas of the country in an irregular pattern. Recommendations called for increased efforts to recruit students into vocational agricultural education, to reduce teacher turnover, and to make salaries in shortage states competitive with those in surplus areas. (MN)

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A NATIONAL STUDY OF THE SUPPLY AND DEMAND FOR TEACHERS OF VOCATIONAL AGRICULTURE IN 1980

BY

DAVID G. CRAIG

U.S. DEPARTMENT OF EDUCATION
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FOREWORD

Demand and supply data about vocational agriculture teachers on a state and national basis can be useful in recruitment and public relations efforts. This is the major premise for the study which has been conducted annually for sixteen consecutive years. This study provides objective data from every state that can be used by agricultural education leaders to identify and compare teacher trends in the vocational agriculture profession. Also, it can provide information for planning and evaluating programs. A fifteen-year summary study was published nationally last year in the 1980 Agriculture Teachers Directory.

In terms of actual use, this study has done much to stimulate recruitment efforts nationally and in states where teacher shortages occur. Teacher education institutions and state departments of education have used the data to aid in their planning and expansion of agricultural education programs. In addition, the data have been used to assist in modifying certification standards. Information from the study has also been used by the National Vocational Agricultural Teachers Association in a careers booth at the National FFA Convention. This report is distributed to every state education department and agricultural teacher education institution, and to selected agricultural education leaders in the United States. Summary reports appear periodically in The Agricultural Education Magazine and the Agriculture Teachers Directory. Agricultural business and industry newsletters and magazines, including The National Future Farmer, use some of the data in news columns and articles. Each year the author receives many favorable comments about the study and requests for information.

Verbal and partial monetary support for this study and its distribution was provided by the Professional Personnel Recruitment Committee of the Agricultural Education Division, American Vocational Association. The Department of Vocational-Technical Education at The University of Tennessee also provided partial monetary support this year. During the annual American Vocational Association meeting in December, the Committee receives a progress report of the current study, reviews last year's report, and makes recommendations for improving further study efforts. A request has been made for financial support to the Ag-Ed Division for the 1981 study. Responsible suggestions are welcome from any reader.

The author wishes to thank the Department of Vocational-Technical Education for its support of the study this year. A special acknowledgment is made to Mrs. Elizabeth Lane, secreatry to the agricultural education staff at The University of Tennessee, Knoxville. She has aided in the conduct of this study for seven years.

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SUPPLY AND DEMAND FOR TEACHERS OF VOCATIONAL AGRICULTURE IN THE UNITED STATES 1980

INTRODUCTION

The much publicized oversupply of teachers in education during the 1970's is changing to a teacher shortage in the 1980's. The field of vocational agriculture education has had a shortage of teachers for many years. This report proposes to describe the nature and degree of the supply and demand of vocational agriculture teachers in 1980. In addition, changes and trends will be identified which have occurred since 1965 when the study began. The findings of this sixteenth annual survey of the supply and demand for teachers of vocational agriculture will be used to stimulate and aid state and nationwide recruitment efforts to secure prospective teachers for the profession.

GATHERING THE DATA

The data on teacher supply and demand were secured from all known institutions preparing teachers in vocational agriculture as well as the offices of head state supervisors in agriculture. Questionnaires were mailed to both groups on September 4, 1980. Follow-up letters and telephone calls were made for five months. A return of nearly 100 percent was received from both groups of respondents.

The respondents were asked to provide information regarding numbers of graduates qualified and the number of teaching positions available. Responses have been tabulated for each state and each institution preparing teachers. A copy of each of the questionnaires used in the study is included in the Appendix.

SUMMARY AND RECOMMENDATIONS

The summary and recommendations regarding the development of a more adequate supply of teachers is included at this point for the convenience of those readers who do not wish to read the entire study. The following represents a brief review of selected results, conclusions and recommendations.

The vocational agriculture supply/demand situation has stabilized in recent years. A total of 1,584 persons were qualified for teaching vocational agriculture in 1980 as compared to 1,038 in 1965. The number qualified is the lowest in the last eleven years of this study. The percentage of individuals placed in teaching positions dropped to 52 percent in 1980.

A shortage of vocational agriculture teachers continues to exist. However, the shortage occurs in certain areas of the country in an irregular pattern. There were only 824 graduates entering teaching for the 1,561 replacements employed up to September 1, 1980. There were 117 teachers still needed on that date. A turnover of 12.5 percent, the highest in sixteen years, also contributed to the teacher shortage.

A comparison of the number of teachers of vocational agriculture in the nation over the past decade shows that the number has increased from a low of 10,221 in 1967 to a record high of 12,844 in 1978. There were 12,510 teachers identified in 1980. This number shows a two-year decline of about 330 teaching positions. In addition, the number of vocational agriculture teachers in technical institutions and community colleges continues to increase each year with a total of 1,778 positions in 1980.

Several trends continue to appear in types of vocational agriculture teaching positions. About 86 percent of all positions occurred in general or comprehensive high schools, while approximately 12 percent were employed in area vocational high schools. Slightly more than one-half, or 53.7 percent, of the positions involved teaching only high school students. The number of teachers in single teacher departments represented about 51 percent of the total, a figure which has stablized in recent years.

About 701 fewer teachers than in 1977 were teaching in production agriculture programs while 27 more teachers were in specialized areas such as Agricultural Business and Supply, Ornamental Horticulture and Agricultural Mechanics.

Most teaching positions were filled by fully qualified persons holding a bachelor's degree. The number of positions filled by teachers with temporary or emergency certificates decreased by about 10 percent to 454 in 1980.

Recommendations

The Professional Personnel Recruitment Committee has recommended that approximately 2,000 persons per year be qualified for teaching vocational agriculture in the nation. It would appear that this goal is realistic, as evidence is submitted to indicate program growth in terms of new positions. In addition, enrollments in colleges of agriculture continue to increase. In view of this goal, the following recommendations are made:

1. Vocational agriculture teachers should recruit their best students each year for teaching vocational agriculture. Each teacher should have as his/her goal that at least one of his/her students graduate in agricultural education every two to three years.

2. Teacher turnover should be reduced and maintained at a low percentage level. Local administrators, state supervisors in agricultural education and professional organizations should provide a variety of incentives to encourage all effective teachers of quality programs to remain in the profession.

3. State supervisors and teacher educators in surplus states should encourage current agricultural education graduates to cross state lines to areas where shortages exist. Continued efforts need to be made to make teacher salaries competitive with other fields in which they might enter.

4. State vocational agriculture teacher associations should exercise leadership in forming and/or maintaining an active recruiting campaign. Emphasis should be placed upon the variety of job opportunities, especially specialized subject areas, locations of jobs, and the advantages of teaching as a profession (for example, the importance of agriculture and working with youth). Recruitment efforts should focus on state, district and local FFA officers and award winners. Colleges of agriculture and departments of agricultural education could offer additional scholarships to potential majors in agricultural education.

5. Agricultural education leaders at the state level should make strong efforts to reduce the number of uncertified teachers in the profession. Continued steps need to be taken to broaden certification standards to include such areas as horticulture, agricultural business and agricultural mechanics. Names and addresses of available and certified teachers need to be placed in the hands of employing superintendents and boards of education.

6. Previous recommendations for further research about vocational agriculture teacher supply and demand have been followed. Studies have

been completed and published as follows: "A Synthesis of Current Research About Vocational Agriculture Teacher Supply and Demand" and "Why Do Vocational Agriculture Teachers Leave (or Stay in) the Profession."

7. This longitudinal study of the supply and demand for teachers of vocational agriculture should be continued in 1981. Proposals for funds have been submitted to the Agricultural Education Division of the American Vocational Association for this study and recruitment activities.

MAJOR FINDINGS

The demand for teachers of vocational agriculture is shown in Table I. A turnover of 12.5 percent required 1,561 teacher replacements for the 12,510 positions in 1980. This table shows that there is still a teacher shortage in that 117 teachers were needed but not available September 1, and that 55 departments could not operate during the 1980-81 school year because of a lack of teachers.

TABLE I

NUMBER OF TEACHING POSITIONS IN VOCATIONAL AGRICULTURE IN THE UNITED STATES IN 1980

Item	Number
1. Total positions as of 6/30/80	12,510*[a]
2. New graduates entering teaching during the 1979-80 school year	324[b]
3. New positions added during 1979-80 school year (net total)	+10[c]
4. Number of newly qualified teachers still available 9/1/80	58[d]
5. Teachers needed but unavailable 9/1/80	117[e]
6. Teachers with temporary or emergency certificates	454[f]
7. Departments which will not operate in 1980-81 because of the teacher shortage	55[g]

*Does not include 1,778 positions in technical institutions and community colleges (an increase of 179 from last year, up 269 from 1978).

[a]A decrease of 262 from last year; a 334 decrease from 1978.
[b]A decrease of 85 from the 1979 figure; a decrease of 191 from 1978.
[c]An increase of 18 from last year; a decrease of 146 from 1978.
[d]An increase of 17 from the 1979 figure; up 19 from 1978.
[e]A decrease of 27 from 1979; down 68 from 1978.
[f]A decrease of 45 from last year a decrease of 57 from 1978.
[g]An increase of 10 from last year, down 45 from 1978

Agricultural Education Graduates

It is evident from Table II that a total of 1,584 teachers were qualified by institutions last year and of these, 824, or 52 percent, accepted teaching positions in vocational agriculture. The table also shows the most recent ten-year trends of the number of teachers qualified and the percent entering various occupational areas.

TABLE II

PERCENTAGES OF AGRICULTURAL EDUCATION GRADUATES ENTERING VARIOUS OCCUPATIONS DURING THE LAST TEN YEARS

Occupation	'1971	'1972	'1973	'1974	'1975	'1976	'1977	'1978	'1979	'1980
Total Number Qualified	1743	1759	1713	1623	1660	1697	1749	1791	1656	1584
Total Number Placed in Vo-Ag	864	964	966	943	999	1043	1063	1015	909	824
Teaching Vo-Ag	49.6	54.8	56.3	58.1	60.2	61.5	60.8	56.7	54.9	52.0
Ag Business	5.1	6.3	6.8	7.8	7.5	6.3	7.4	9.3	14.9	13.8
Graduate Work	9.1	7.9	7.6	8.9	9.8	8.8	6.3	9.1	9.1	10.3
Other Work	11.0	11.0	13.7	10.8	9.9	11.0	13.7	13.8	7.5	8.8
Farming	7.1	7.7	9.3	9.2	8.2	8.2	8.2	7.3	7.9	7.6
Unemployed	(no data 1971-78)								2.5	3.6
Other Teaching	6.1	6.6	4.1	4.1	3.3	2.5	1.8	2.8	2.1	2.3
Armed Forces	12.0	5.0	2.2	1.1	1.1	1.7	1.8	1.0	1.1	1.6

Enrollments in Agricultural Colleges

There should be a close relationship between the number of agricultural teachers qualified and the number of persons enrolled in agricultural colleges. Table III shows a more rapid increase in agricultural college enrollments over this sixteen-year period than the number qualified to teach. More specifically, as the number of persons qualified to teach has stabilized somewhat in the past ten years, the agricultural college enrollments have almost doubled.

TABLE III

ENROLLMENT IN COLLEGES OF AGRICULTURE COMPARED WITH NUMBERS QUALIFIED IN AGRICULTURAL EDUCATION 1959-80

Academic Year	Enrollment in Agriculture	Percent Based on 1959-60	Number Qualified in Agricultural Education	Percent Based on 1959-60
1959-60	33,968	100%	1,324	100%
1964-65	39,623	116.6	1,110	83.8
1968-69	52,623	115.8	1,566	118.3
1969-70	57,527	169.3	1,700	128.4
1970-71	62,863	185.0	1,743	131.6
1971-72	66,057	194.4	1,759	132.9
1972-73	66,752	196.5	1,713	129.4
1973-74	77,516	228.2	1,623	122.6
1974-75	88,993	262.0	1,660	125.4
1975-76	97,941	288.3	1,697	128.2
1976-77	103,382	304.4	1,749	132.1
1977-78	101,440	298.6	1,791	135.3
1978-79	103,793	305.6	1,656	125.1
1979-80	105,755	311.3	1,584	119.6

A Sixteen-Year Comparison of Teacher Supply

A sixteen-year comparison of the number of positions in teaching vocational agriculture in Table IV shows an upward trend since 1971. The highest number of teaching positions occurred in 1978 when there were 12,844.

During the last seven years there has been an average need per year for more than 208 teachers that were not available. Also during the last seven years, 1980 showed the lowest percent of qualified persons entering vo-ag teaching.

TABLE IV

A SIXTEEN-YEAR COMPARISON OF SELECTED INFORMATION ON THE SUPPLY OF TEACHERS OF VOCATIONAL AGRICULTURE

Year	Total No. of Positions	Teachers Needed But Not Available September 1	Total Qualified for Teaching	Percent Qualified Entering Vo-Ag Teaching
1965	10,378	120	1,038	64.6
1966	10,325	162	1,151	63.4
1967	10,221	232	1,233	60.2
1968	10,606	141	1,314	61.6
1969	10,560	121	1,566	56.9
1970	10,520	171	1,700	51.0
1971	10,438	120	1,743	49.6
1972	10,716	134	1,759	54.8
1973	11,141*	276	1,713	56.3
1974	11,578*	292	1,623	58.1
1975	12,107*	211	1,660	60.2
1976	12,486*	211	1,697	61.5
1977	12,694*	221	1,749	60.8
1978	12,844*	189	1,791	56.7
1979	12,772*	144	1,656	54.9
1980	12,510*	117	1,584	52.0

*The figures for 1973 to 1980 do not include teachers of agricultural technicians in technical institutes, community colleges, and similar institutions.

Changes in Curriculum and Clientele

Changes in vocational agriculture teaching positions are shown in Table V. This table shows that only 366, or 2.9 percent, of the teachers taught classes in junior high school, while 53.7 percent taught only high school classes; 40.5 percent of the teachers taught high school classes as well as classes for adult and young farmers. The number teaching full-time adult and young farmer classes has dropped more than 31 percent from 1973.

As to the kind of schools, 86.8 percent of the vocational agriculture positions were located in comprehensive or general high schools, while about 12 percent occurred in area vocational high schools. The number of teachers located in single teacher departments has fluctuated between 48 and 52 percent in recent years. The percent increased to 51.1 in 1980. Hence, the number of persons located in multiple teacher departments decreased to 48.9 percent.

Curricular offerings in vocational agriculture are showing trends toward specialization. Slightly more than two-thirds of the teachers are teaching, at least part time, in specialized nonproduction programs. Almost 19 percent of the teachers are full time in some form of specialized off-farm program. The number of teachers in production agriculture programs has dropped to 4,017 or 33.5 percent of the total.

TABLE V

TYPES OF TEACHING POSITIONS IN VOCATIONAL AGRICULTURE
IN 1979 AND IN 1980

Type of Position	Number 1979	Number 1980	Percent of Total 1980
By Kind of Students			
Teachers of junior high school classes only	409	366	2.9
Teachers of high school classes only	6,584	6,715	53.7
Teachers of both high school and out-of-school classes (adult and/or young farmer classes)	5,384	5,075	40.5
Teachers of adult and young farmer classes only	458	359	2.9
By Kind of School			
Teachers in general or comprehensive high schools	10,848	10,771	86.8
Teachers in area vocational high schools	1,554	1,468	11.8
Teachers in vocational high schools	269	171	1.4
By Size of Staff			
Teachers in single teacher departments	6,364	6,421	51.1
Teachers in multiple teacher departments	6,315	6,154	48.9
By Kind of Program			
Teachers in full-time production agriculture programs	4,718	4,017	33.5
Teachers in full-time ornamental horticulture programs	(no data)	1,151	9.6
Teachers in part-time production agriculture programs and had one or more classes in specialized programs such as Agricultural Supplies, Agricultural Mechanics	5,169	5,735	47.8
Teachers in full-time specialized programs such as Agricultural Supplies, Agricultural Mechanics, Agricultural Products	2,220	1,096	9.1

Graduates and Teaching Positions by States and Regions

There was a close relationship between the regions with the largest number of teaching positions and those producing the largest number of qualified graduates as shown in Table VI. All regions placed 46 percent or more of their respective qualified graduates. The Pacific Region had the highest placement rate with 62.6 percent. Although the Southern Region and the Central Region qualified and placed the largest numbers of teachers, the former rate of placement was lower than the other regions.

TABLE VI

PLACEMENT OF AGRICULTURAL EDUCATION GRADUATES BY REGIONS IN 1980

Region	Teaching Positions	Number Qualified Graduates	Number Placed in Teaching Vo-Ag	Percent Placed in Teaching Vo-Ag
Southern	5,816	733	337	46.0
Central	3,713	482	271	56.2
Pacific	1,581	206	129	62.6
North Atlantic	1,400	163	87	53.4

A comparison of the number of teaching positions in each of the states and regions is shown in Table VII. Ten states had over 400 teachers of agriculture in secondary schools. They include Texas, 1,576; Ohio, 748; California, 651; Florida, 535; Minnesota, 514; Oklahoma, 446; North Carolina, 439; Alabama, 437; Illinois, 436; and Virginia, 406.

The number of teacher replacements was highest in the Southern Region which required 741 teachers, followed by the Central Region with 511, the Pacific Region with 177, and the North Atlantic Region with 132. The Southern Region had the greatest need for teachers on September 1 with 84; the Central Region, 18; the North Atlantic Region, 11; and the Pacific Region needed 4.

TABLE VII

TEACHING POSITIONS IN VOCATIONAL AGRICULTURE
BY STATES AND REGIONS, SEPTEMBER 1, 1980

North Atlantic Region

State	Total Positions 8/1/80	Number Replacements Employed to 8/1/80	Net Gain in Positions Since 8/1/79	Total Teachers Needed	Teachers Still Needed 8/1/80
New York	387	31	+ 6	37	0
Pennsylvania	365	46	+ 1	47	3
West Virginia	119	13	+ 7	20	3
Maryland	101	10	+ 1	11	2
Massachusetts	96	7	+ 4	11	0
New Jersey	70	5	0	5	0
Connecticut	63	2	+ 2	4	0
Delaware	54	2	0	2	0
Maine	52	2	+ 1	3	0
Vermont	41	8	- 3	5	0
New Hampshire	35	6	+ 1	7	0
Rhode Island	17	0	0	0	0
TOTAL FOR REGION	1,400	132	+20	152	11

TABLE VII (continued)

TEACHING POSITIONS IN VOCATIONAL AGRICULTURE
BY STATES AND REGIONS, SEPTEMBER 1, 1980

Central Region

State	Total Positions 8/1/80	Number Replacements Employed to 8/1/80	Net Gain in Positions Since 8/1/79	Total Teachers Needed	Teachers Still Needed 8/1/80
Ohio	48	80	- 9	71	0
Minnesota	514	104	-12	92	4
Illinois	436	69	+ 2	71	0
Wisconsin	350	35	+ 0	35	1
Missouri	340	0	+ 2	2	1
Indiana	292	26	- 1	25	0
Iowa	287	75	+ 9	84	0
Michigan	208	21	- 2	19	3
Kansas	176	32	+ 3	35	2
Nebraska	155	28	+ 2	30	0
North Dakota	123	15	- 3	12	5
South Dakota	84	26	+ 3	29	2
TOTAL FOR REGION	3,713	511	- 6	505	18

TABLE VII (continued)

TEACHING POSITIONS IN VOCATIONAL AGRICULTURE
BY STATES AND REGIONS, SEPTEMBER 1, 1980

Pacific Region

State	Total Positions 8/1/80	Number Replacements Employed to 8/1/80	Net Gain in Positions Since 8/1/79	Total Teachers Needed	Teachers Still Needed 8/1/80
California	651	45	-20	25	0
Washington	260	26	- 3	23	0
Oregon	142	17	- 2	15	0
Colorado	100	18	- 1	17	2
Idaho	83	12	+ 1	13	0
Montana	83	20	- 3	17	1
Arizona	79	17	+ 1	18	1
New Mexico	75	10	- 1	9	0
Utah (1979)	70	7	+ 1	8	1
Wyoming	52	9	0	9	0
Hawaii	25	3	+ 1	4	0
Nevada	24	0	- 2	0	0
Alaska	7	0	0	0	0
TOTAL FOR REGION	1,581	177	-29	148	4

TABLE VII (continued)

TEACHING POSITIONS IN VOCATIONAL AGRICULTURE
BY STATES AND REGIONS, SEPTEMBER 1, 1980

Southern Region

State	Total Positions 8/1/80	Number Replacements Employed to 8/1/80	Net Gain in Positions Since 8/1/79	Total Teachers Needed	Teachers Still Needed 8/1/80
Texas	1,576	300	+40	340	40
Florida	535	61	- 1	60	24
Oklahoma	446	54	+15	69	2
North Carolina	439	32	- 9	23	0
Alabama	437	53	- 5	48	0
Virginia	406	42	- 5	37	6
Georgia	365	42	0	42	2
Kentucky	324	22	0	22	3
Louisiana	298	28	-18	10	0
Arkansas	274	36	+ 6	42	0
Mississippi	269	22	+ 9	31	1
Tennessee	264	29	- 3	26	0
South Carolina	183	20	- 4	16	4
TOTAL FOR REGION	5,816	741	+25	766	84
TOTAL FOR THE UNITED STATES	12,510	1,561	+10	1,571	117

In addition, there were 1,778 teachers of agriculture technicians in technical institutes and junior and community colleges, making a grand total of 14,288 vo-ag teachers in the United States.

Sources of Teacher Replacement

In order to assist with recruitment, an attempt was made to determine the sources from which teacher replacements were hired. There were few major differences among the regions as to the sources of teacher replacement (See Table VIII). Graduates in agricultural education with a bachelor of science degree accounted for 48 percent of the replacement teachers hired in 1980. When all recent agriculture graduates were considered, they represented almost 60 percent of the sources of teacher replacement. It is significant that 28 percent of the sources of teacher replacement were listed as "other", or nontraditional sources.

TABLE VIII

SOURCES OF TEACHER REPLACEMENT
BY REGION IN 1980

Sources of Teacher Replacement	Region					
	Central	North Atlantic	Pacific	Southern	Total	Percent
Agr. Educ. B.S. Graduates	212	50	95	337	694	47.9
Agr. Educ. M.S. Graduates	7	6	4	28	45	3.1
Other Agriculture Graduates	12	6	35	47	100	6.9
Other Education Graduates	7	6	0	10	23	1.6
Agricultural Business Re-entry	84	37	9	45	175	12.1
Discharged from Military Service	1	3	0	1	5	0.3
Other	100	16	34	258	408	28.1

Number of Teachers Prepared
by State and Region

Table IX shows that 1,584 persons were prepared for teaching vocational agriculture in the United States in 83 different institutions. Of those individuals, 824 became teachers of vocational agriculture, 218 have chosen agricultural business careers, 201 entered other fields of work, 63 began graduate work, 120 began farming, while 58 were unemployed. The largest number of teachers, 733, were prepared in the Southern Region, followed by 482 in the Central Region. The Pacific Region qualified 129, and 87 were prepared in the North Atlantic Region.

In many states one university has been designated for the preparation of teachers of vocational agriculture. States with more than one institution preparing teachers of vocational agriculture included Texas with 9; Tennessee had 5; California, Illinois, Kentucky, and Louisiana, with 4 each; Arkansas and Mississippi, North Carolina, and Virginia each with 2.

TABLE IX

GRADUATES IN AGRICULTURAL EDUCATION
BY STATES AND REGIONS DURING THE 1979-80 SCHOOL YEAR

North Atlantic Region

State	Institutions Reporting	Number of Qualified Graduates					
		Teaching Vo-Ag	Agr. Business	Farming	Graduate Work	Other	Total
Connecticut	Univ. of Connecticut	3	1	0	0	0	4
Delaware	Delaware State College	0	0	0	0	0	0
	Univ. of Delaware	1	1	0	2	2	6
Maine	Univ. of Maine, Orono*	0	0	2	0	1	3
Maryland	Univ. of Maryland	7	2	0	1	2	12
	Univ. of Maryland Eastern Shore	0	0	0	0	0	0
Massachusetts	Univ. of Massachusetts	4	0	0	1	3	8
New Hampshire	Univ. of New Hampshire	6	0	0	0	4	10
New Jersey	Rutgers University	1	1	0	2	3	7
New York	Cornell University	10	0	2	3	7	22
Pennsylvania	Pennsylvania State Univ.	37	6	1	3	10	57
Rhode Island	Univ. of Rhode Island	5	0	0	2	3	10
Vermont	Univ. of Vermont (1979)	2	0	2	0	2	6
West Virginia	West Virginia University	11	0	3	2	2	18
TOTAL FOR REGION		87	14	7	16	39	163

*First year reporting.

TABLE IX (continued)

GRADUATES IN AGRICULTURAL EDUCATION
BY STATES AND REGIONS DURING THE 1979-80 SCHOOL YEAR

Central Region

State	Institutions Reporting	Number of Qualified Graduates					
		Teaching Vo-Ag	Agr. Business	Farming	Graduate Work	Other	Total
Illinois	Illinois State Univ., Normal	12	0	4	0	0	16
	Southern Illinois Univ., Carbondale	12	5	1	7	4	29
	University of Illinois, Urbana - Champaign	12	2	0	2	0	16
	Western Illinois Univ., Macomb	6	1	1	0	1	9
Indiana	Purdue University	22	3	1	5	7	38
Iowa	Iowa State University	15	12	3	2	4	36
Kansas	Kansas State University	18	5	4	3	6	36
Michigan	Michigan State University	17	4	1	3	5	30
Minnesota	University of Minnesota	23	6	3	2	4	38
Missouri	University of Missouri	22	4	1	6	4	37
Nebraska	University of Nebraska	17	5	7	4	1	34
North Dakota	North Dakota State University	16	3	1	1	3	24
Ohio	Ohio State University	26	4	6	5	9	50
South Dakota	South Dakota State University	16	2	5	1	1	25
Wisconsin	Univ. of Wisconsin, Madison	9	1	0	0	0	10
	Wisconsin State University, Platteville	8	2	2	3	2	17
	Wisconsin State University, River Falls	20	12	1	2	2	37
TOTAL FOR REGION		271	71	41	46	53	482

TABLE IX (continued)

GRADUATES IN AGRICULTURAL EDUCATION
BY STATE AND REGIONS DURING THE 1979-80 SCHOOL YEAR

Pacific Region

State	Institutions Reporting	Number of Qualified Graduates					
		Teaching Vo-Ag	Agr. Business	Farming	Graduate Work	Other	Total
Arizona	Univ. of Arizona	9	2	0	0	0	11
California	California State, Fresno	11	0	0	0	2	13
	California State, Pamona	10	0	1	0	1	12
	California State, San Luis Obispo	11	4	2	0	5	22
	Univ. of California, Davis	6	3	1	1	1	12
Colorado	Colorado State Univ.	11	1	8	0	3	23
Idaho	Univ. of Idaho	5	3	0	0	1	9
Montana	Montana State Univ.	10	1	5	0	1	17
Nevada	Univ. of Nevada	1	1	0	0	3	5
New Mexico	New Mexico State Univ.	9	2	2	3	3	19
Oregon	Oregon State Univ.	13	3	1	1	2	20
Utah	Utah State Univ.	7	1	1	0	0	9
Washington	Washington State Univ.	23	2	1	1	1	28
Wyoming	Univ. of Wyoming	3	0	2	1	0	6
TOTAL FOR REGION		129	23	24	7	23	206

TABLE IX (continued)

GRADUATES IN AGRICULTURAL EDUCATION
BY STATES AND REGIONS DURING THE 1979-80 SCHOOL YEAR

SOUTHERN REGION

State	Institutions Reporting	Number of Qualified Graduates					
		Teaching Vo-Ag	Agr. Business	Farming	Graduate Work	Other	Total
Alabama	Alabama A & M College	5	0	0	2	8	15
	Auburn Univ.	12	12	2	1	0	27
Arkansas	Arkansas State Univ.	11	0	0	0	1	12
	Univ. of Arkansas, Fayetteville	9	1	0	2	1	13
	Univ. of Arkansas, Pine Bluff	0	0	0	1	5	6
Florida	Univ. of Florida	17	3	0	5	6	31
Georgia	Fort Valley State College	4	0	0	0	4	8
	Univ. of Georgia	12	5	1	5	1	24
Kentucky	Morehead State Univ.	4	4	0	2	1	11
	Murray State Univ.	3	3	0	4	4	14
	Univ. of Kentucky	3	6	2	1	6	18
	Western Kentucky Univ.	6	3	2	3	1	15
Louisiana	Louisiana State Univ.	3	4	0	4	3	14
	Louisiana Tech Univ.	3	0	1	1	2	7
	Southern Univ. (1979)	3	0	0	2	2	7
	Univ. of S.W. Louisiana	6	0	0	0	0	6
Mississippi	Alcorn State Univ.	3	1	0	3	5	12
	Mississippi State Univ.	5	6	3	2	14	30

More

TABLE IX (continued)

GRADUATES IN AGRICULTURAL EDUCATION
BY STATES AND REGIONS DURING THE 1979-80 SCHOOL YEAR

Southern Region

State	Institutions Reporting	Number of Qualified Graduates					
		Teaching Vo-Ag	Agr. Business	Farming	Graduate Work	Other	Total
North Carolina	A & T State Univ.	5	3	1	3	8	20
	North Carolina State Univ.	11	5	2	6	5	29
Oklahoma	Oklahoma State Univ.	33	1	3	0	4	41
South Carolina	Clemson Univ.	6	1	1	1	2	11
Tennessee	Middle Tenn. State Univ.	5	4	3	2	1	15
	Tennessee State Univ.	6	0	0	0	0	6
	Tennessee Tech Univ.	2	0	0	0	0	2
	Univ. of Tennessee, Knoxv.	9	0	2	2	6	19
	Univ. of Tennessee, Martin	2	0	2	1	1	6
Texas	East Texas State Univ.	19	7	2	3	0	31
	Prairie View A & M College	1	1	0	3	1	6
	Sam Houston State Univ.	24	2	1	7	6	40
	Southwest Texas State Univ.	7	4	0	2	0	13
	Stephen F. Austin State Univ.	16	0	0	3	1	20
	Tarleton State Univ.	21	11	4	6	7	49
	Texas A & I Univ.	4	2	2	1	1	10
	Texas A & M Univ.	18	14	5	13	15	65
	Texas Tech Univ.	12	5	6	2	9	34
Virginia	Virginia Polytechnic Inst. & State Univ.	24	0	2	2	8	36
	Virginia State Univ.	3	0	0	0	7	10
TOTAL FOR REGION		337	110	48	94	144	733
TOTAL FOR UNITED STATES		824	218	120	163	259	1,584

Suggestions to States with Teacher Shortages

Tables X and XI are included to aid those who wish to locate additional teachers from other states. A comparison of the number of teachers qualified and the numbers employed but not teaching in Table X, shows that all of the regions had an appreciable number of qualified persons accepting other positions. It is also emphasized that only 5.7 percent of the qualified teachers (1 percent below last year) left their home states to find employment in vocational agriculture elsewhere.

TABLE X

PLACEMENT OF GRADUATES IN NONVO-AG TEACHING POSITIONS AND OUTSIDE THE STATE BY REGION IN 1980

Region	Teachers Qualified	Employed But Not Teaching Vo-Ag	Employed Outside the State
Southern Region	733	375	33
Central Region	482	195	28
Pacific Region	206	63	16
North Atlantic	163	69	14
TOTAL	1,584	702	91

Table XI lists the states by percentage of placement of agricultural education graduates in vocational agriculture positions. There were 26 states that had a placement percentage above the mean, which was 51.6 percent. There were 22 states that had a placement percentage below the national average. There is a very wide range of percent placement among the states, i.e., 0.0 to 82.1. These data are similar to those of last year. However, the placement rates of each state are very different from last year. The listings of high and low placement percentage states may be an indication of the high and low teacher supply states, respectively.

TABLE XI

PLACEMENT RATES OF AGRICULTURAL EDUCATION GRADUATES
IN VOCATIONAL AGRICULTURAL POSITIONS
BY STATE

State	Percent Placement	State	Percent Placement
Washington	82.1	Ohio	52.0
Arizona	81.9	Georgia	50.0
Oklahoma	80.5	Kansas	50.0
Utah	77.8	Massachusetts	50.0
Connecticut	75.0	Nebraska	50.0
North Dakota	66.7	Rhode Island	50.0
Oregon	65.0	Tennessee	50.0
Pennsylvania	64.9	Wyoming	50.0
Arkansas	64.5	Colorado	47.8
California	64.4	New Mexico	47.4
South Dakota	64.0	New York	45.5
West Virginia	61.1	Texas	45.5
Minnesota	60.5	Louisiana	44.1
Illinois	60.0	Iowa	41.7
New Hempshire	60.0	Alabama	40.5
Missouri	59.5	Vermont	33.3
Montana	58.8	North Carolina	32.7
Virginia	58.7	Kentucky	27.6
Maryland	58.3	Nevada	20.0
Indiana	57.9	Mississippi	19.0
Wisconsin	57.8	Delaware	16.7
Michigan	56.7	New Jersey	14.3
Idaho	55.6	Maine	0.0
Florida	54.8	Alaska) No data	-
South Carolina	54.5	Hawaii)	-

(National Average 51.6)

APPENDICES

APPENDIX A

DUE OCTOBER 1980

RETURN TO: Dr. David G. Craig
Department of Vocational-Technical Education (Agriculture)
225 Morgan Hall, UTK
Knoxville, TN 37916

PLEASE - Return by October 1, 1980

SURVEY OF TEACHER DEMAND IN VOCATIONAL AGRICULTURE IN 1980

Name _____ Position _____ State _____

1. Number of teachers of vocational agriculture employed in your state during 1979-80 school year. _____ (Do not include teachers in technical institutes and community colleges.)

2. Number of replacements required for the above teachers during the past year. ___

3. Of the replacements hired, how many were:

   a. Ag Ed, B.S., 1980, graduates _____

   b. Ag Ed, M.S., 1980, graduates _____

   c. Other agriculture, 1980, graduates _____

   d. Other education, 1980, graduates _____

   e. Agricultural business, re-entry _____

   f. Discharged from military service _____

   g. Other _____ _____

   Total replacements should match No. 2 above _____

4. Number of new and additional positions in teaching vocational agriculture which became available during the past year (7/1/79 to 6/30/80). -------- _____

   Number of positions discontinued ---------- _____

   Net gain or loss in number of positions during the past year ------- _____

5. Number of vocational agriculture teachers still needed (9/1/80) but not available in your state. _____

6. Number of vocational agriculture teachers last year who held emergency or temporary certificates. _____

7. Number of departments which probably will not operate this year because of a shortage of teachers. _____

8. Of the total number of vocational agriculture teachers reported in Item 1, how many teachers:

8.1 Taught junior high school or middle school classes only. -------- _____

8.2 Taught high school classes only. ---------- _____

8.3 Taught both high school and out-of-school classes (adult and/or young farmer classes). ---------- _____

8.4 Taught adult and/or young farmer classes only (including vet classes). ---------- _____

(8.1 + 8.2 + 8.3 + 8.4 should <u>equal</u> the number of teachers reported in Item 1.)

How many teachers reported in Item 1:

8.5 Taught in general or comprehensive high schools. _____

8.6 Taught in vocational high schools. _____

8.7 Taught in area vocational high schools. _____

(8.5 + 8.6 + 8.7 should <u>equal</u> the number of teachers reported in Item 1.)

How many teachers reported in Item 1:

8.8 Taught in single teacher departments. _____

8.9 Taught in multiple teacher departments. _____

(8.8 + 8.9 should <u>equal</u> the number of teachers reported in Item 1.)

How many teachers reported in Item 1:

8.10 Taught full time in production agriculture programs. _____

8.11 Taught full time in ornamental horticulture programs. _____

8.12 Taught part time in production agriculture programs and had one or more classes in specialized programs such as agricultural supplies or mechanics or ornamental horticulture. _____

8.13 Taught full time in specialized programs such as agricultural mechanics or agricultural supplies. _____

(8.10 + 8.11 + 8.12 + 8.13 should <u>equal</u> the number of teachers reported in Item 1.)

9. In addition to the teachers of vocational agriculture reported in Item 1, how many were employed as teachers of agriculture in post high school institutions such as community colleges, technical institutes, or area vocational schools?

_____

<u>Please check your addition</u>

DUE OCTOBER 1, 1980

RETURN TO: Dr. David G. Craig
Department of Vocational-Technical Education (Agriculture)
225 Morgan Hall
Knoxville, TN 37916

PLEASE - Return by October 1, 1980

SURVEY OF TEACHER SUPPLY IN VOCATIONAL AGRICULTURE IN 1980

1. Total full-time, four-year degree undergraduate enrollment in your institution:

   1.1 In Agriculture (not including Home Economics, Business, Hotel Administration.) _____

   1.2 In Agricultural Education. _____

2. Number qualified for teaching vocational agriculture from your college or university 7/1/79 to 6/30/80. _____

3. Given those qualified above, indicate their employment status as of 9/1/80: (Please check your addition.)

   3.1 Teaching Vo-Ag _____
   3.2 Teaching other subjects _____
   3.3 Ag Business _____
   3.4 Farming _____
   3.5 Graduate Work _____
   3.6 Armed Forces _____
   3.7 Other (including foreign students) _____
   3.8 Unemployed or still available _____

4. Of those qualified during 7/1/79 to 6/30/80, how many were employed in Vo-Ag outside your state? _____

   4.1 Of the graduates who took Vo-Ag jobs in other states, please list the number going to each state.

STATE	NUMBER	STATE	NUMBER

Signed _____ Institution _____